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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* THOMAS L. HASCHEN and ROBERT J. PATTERSON

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Appeal 2009-002589<sup>1</sup>  
Application 10/530,290  
Technology Center 1700

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Decided:<sup>2</sup> August 4, 2009

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Before JEFFREY T. SMITH, MARK NAGUMO, and  
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 84-122. We have jurisdiction under 35 U.S.C. § 6.<sup>3</sup>

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<sup>1</sup> A hearing was held in this appeal on June 25, 2009.

<sup>2</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

Appellant's invention relates to methods that allow a user, such as, for example, a brewer, fermenter and/or distiller, to produce a high nutrient value ruminant animal feed and/or feed supplement. (Spec. 0009). Claim 84 is illustrative:

84. A method of predictably enhancing the nutrient value of distillers, brewers or fermenters grain byproducts, and of producing a protein feed or feed supplement end product having a crude protein content of over about 30% of the feed or feed supplement end product composition on a dry matter basis, and at least one of (1) a UIP/RUP content of over 50% and up to about 83% of the crude protein, (2) amino acid levels in the crude protein and in the RUP/UIP of greater than 1% and up to about 2% methionine and 2% and up to about 8% lysine, or (3) a post ruminal digestibility of the UIP/RUP of over 60% and up to about 94%, comprising:

determining the desirable levels of crude protein, UIP/RUP, amino acids and post ruminal digestibility in an end product; creating a distillers, brewers or fermenters grain by-product-nutrient source mixture having an enhanced nutrient value by (a) adding one or more crude protein and/or amino acid content nutrient sources comprising canola meal, soybean meal, sunflower meal into wet distillers, brewers or fermenters by-products based on the crude protein, UIP protein, amino acid content, UIP/RUP amino acid content of the added nutrient sources; and (b) adjusting the temperature and/or the moisture content of the enhanced nutrient value by-product-nutrient source mixture based on an empirically derived relationship that relates the UIP as a percent of the crude protein (CP) to an end product temperature in a predictable and repeatable manner to produce said end product,

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<sup>3</sup> In rendering this decision we have considered the Appellant's arguments presented in the Appeal Brief dated March 27, 2008.

wherein the empirically derived relationship that relates the UIP as a percent of the crude protein (CP) is the following formula:

$$\text{UIP (\% of CP)} = (\text{End Product Temperature } ^\circ\text{F} \times 0.819) - 107.644.$$

The Examiner rejected the claims on appeal as follows:

Claims 87, 89, 90, 96, 106, 108-111, 116, and 119-122 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

Claims 84-122 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Heitritter (U.S. 5,824,355, issued October 20, 1998) combined with Schingoethe ("Feed Wet Distillers Grains to Dairy Cattle," Dairy Science Department South Dakota State University (May 24, 2001), pp 1-6).

#### *The §112, second paragraph, rejections*

"The legal standard for definiteness [under the second paragraph of 35 U.S.C. § 112] is whether a claim reasonably apprises those of skill in the art of its scope." *In re Warmerdam*, 33 F.3d 1354, 1361 (Fed. Cir. 1994). The inquiry is to determine whether the claim sets out and circumscribes a particular area with a reasonable degree of precision and particularity. The definiteness of the language employed in a claim must be analyzed not in a vacuum, but in light of the teachings of the particular application. *In re Moore*, 439 F.2d 1232, 1235 (CCPA 1971).

"[D]uring patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed." *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir.

1989). That is, a patent applicant has the opportunity and responsibility to remove any ambiguity in claim term meaning by appropriate amendment of the claims or the supporting specification. “Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.” *In re Zletz*, 893 F.2d at 322.

When a claim is amenable to two or more plausible and distinct claim constructions, the claim is indefinite for failing to particularly point out and distinctly claim the subject matter that Appellants consider to be the invention. *In re Merat*, 519 F.2d 1390, 1394 (CCPA 1975) (claims held indefinite because the meaning of the term “normal” as applied to chickens and cocks could not be determined (“inexplicably inconsistent”) in light of the specification); *see also Ex parte Miyazaki*, 89 USPQ2d 1207, 1211 (BPAI 2008) (precedential).

The Examiner contends that the claimed subject matter of claims 116 and 122 is indefinite in scope because the claims recite the limitation “starting by-product solubles-nutrient-source mixture”. The Examiner contends that the independent claims from which these claims depend do not recite the specific mixtures as claimed; the independent claims recite “by-product solubles nutrient source mixture.” The Examiner determined that “it is unclear as to if the starting mixture is [a] the wet distillers, brewers or fermenters solubles alone, or as to if the starting mixture is [b] the unmodified mixture of the wet distillers, brewers or fermenters solubles and one or more crude protein and/or amino acid content nutrient source, or as to if the starting mixture is [c] the temperature modified mixture of the wet distillers, brewers or fermenters solubles and one or more crude

protein and/or amino acid content nutrient source, or as to if the starting material is some other composition.” (Ans. 4; bracketed letters added). In response to this rejection, Appellants contend the rejection is without merit. They essentially repeat the claim language and conclude, “[i]t appears clear to Appellants that the starting by-product solubles nutrient mixture is what is created.” (App. Br. 24).

Appellants have not affirmatively identified what starting materials are utilized for adjusting the nutrient values. Appellants have not pointed out portions of the specification that describe the contents of the starting mixture. Appellants’ response that the starting by-product solubles nutrient mixture is what is created does not clarify the issue of which, if any, of the “starting materials” named by the Examiner are the basis for calculating the improved nutrient value of the final product. In fact, Appellants’ response further supports the Examiner’s rejection that it is not clear what the content of starting material is. Therefore we affirm the rejection of claims 116 and 122.

Regarding claims 109-111 and 119-122, the Examiner contends that the claims recite a system for predictably enhancing nutrient value, a system for determining means, a system for mixing, and a system adjusting means. The Examiner found that “it is unclear if the system is based on personal observation of the animal for which the feed is to be feed; it is unclear if the system is based on chemical observation of the animal to which the feed is to be feed, etc.” (Ans. 5). Appellants contend “that the claims fully comply with 35 U.S.C. § 112, second paragraph as they stand and because one of ordinary skill in the art can readily determine the metes

and bounds of the invention to determine whether or not they infringe the claimed invention.” (App. Br. 29).

Appellants have not identified the methods, apparatuses or materials that are included or excluded by the claimed “systems.” The Examiner has identified plausible methods for determining the appropriate nutrient content. Appellants have not pointed to portions of the specification that describe the conditions of observation of the nutrient values. That is, are nutrient values determined by observation of an animal, by a person, or chemical observation of specimen samples from an animal, by a machine, or other techniques? Due to the fact that the claim is amenable to two or more plausible claim constructions there is an ambiguity as to what is intended by the language “systems”. We affirm the Examiner’s rejection under 35 U.S.C. §112, second paragraph, as indefinite for particularly pointing out and distinctly claiming the subject matter that Appellants’ considers to be the invention. Therefore we affirm the rejection of claims 109-111 and 119-122.

Regarding claims 87, 89, 90, 96, 106, 108, 110, 116, and 122, the Examiner contends that the claimed subject matter is indefinite in scope because the subject matter is incomplete for omitting essential steps. The Examiner contends that “[t]he claims refer to increasing the nutrient values of a source mixture, however, they do not refer to the method by which this is done. Thus, it is unclear in these method claims in which step of the independent claim an increased nutrient value is achieved.” (Ans. 5).

After consideration of the present record, we determine that a person of ordinary skill in the art would have realized that the claim affirmatively requires a step of adding nutrients to the source material and therefore is not incomplete for omitting essential steps. Thus, one of ordinary skill in this art would readily understand the scope of the claimed invention which is all that is required under § 112, second paragraph. The stated rejection of claims 87, 89, 90, 96, 106, 108, 110, 116, and 122 is reversed.

*The Prior Art Rejection.*

We now turn to the prior art rejection. Claims 84-122 stand rejected under 35 U.S.C. §103(a) as unpatentable over Heitritter combined with Schingoethe. We select independent claim 84 as representative of the rejected subject matter.

The dispositive issue is whether Appellants have shown that the combination of Heitritter and Schingoethe does not describe or suggest predictably enhancing the nutrient value of ruminant animals feed according to an empirically derived formula as specified by the claimed invention. Because we answer this question in the affirmative, we reverse.

In order to establish a prima facie case of obviousness, the Examiner must show that each and every limitation of the claim is described or suggested by the prior art or would have been obvious based on the knowledge of those of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988

(Fed. Cir. 2006) (quoted with approval in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)).

The Examiner contends that Heitritter teaches a feed product with a specific RUP/IUP level of 69.9% and coordinating end product temperature of at least 200 °F. The Examiner contends that this method is the same as the method of increasing the nutrient value of the feed as taught by Appellants. The Examiner contends that a person of ordinary skill in the art would expect the references to teach the claimed method “[s]ince the appellant and the reference both teach of [] substantially the same process, i.e. heating a feed composition to a temperature of at least 200F, with substantially the same product produced, i.e. a feed composition with a crude protein content of 47.2%, UIP/RUP content of 69.9% of the crude protein, . . . ” (Ans. 8-9).

We agree with Appellants that Heitritter and Schingoethe do not describe or suggest predictably enhancing the nutrient value of ruminant animal feed according to an empirically derived formula as specified by the claimed invention. (App. Br. 36-37). The Examiner has not identified an empirically derived formula in Heitritter utilized to achieve predetermined levels of nutrient values. The Examiner has not pointed to evidence or explained why the process utilized in producing Heitritter's product that allegedly has the claimed nutrient levels would necessarily meet the claimed empirical formula. Nor has the Examiner explained why it would have been obvious to arrive at nutrient levels within the ranges recited in the claims. Under these circumstance, we cannot conclude that the Examiner has met the minimum threshold of establishing obviousness

under 35 U.S.C. § 103. Therefore, the rejections of claims 84-122 § 103 is reversed.

**ORDER**

The decision of the Examiner rejecting claims 109-111, 116 and 119-122 under 35 U.S.C. § 112, second paragraph, is affirmed.

The decision of the Examiner rejecting claims 87, 89, 90, 96, 106 and 108, under 35 U.S.C. § 112, second paragraph, is reversed

The decision of the Examiner rejecting claims 84-122 U.S.C. § 103(a) is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

**AFFIRMED-IN-PART**

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BIRCH, STEWART, KOLASCH & BIRCH  
P.O. BOX 747  
FALLS CHURCH, VA 22040-0747